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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

May 30, 2007

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor

FROM: Steve Fluke, Reclamation Hydrogeologist DWH SMF

RE: 2006 Third Quarter Water Monitoring, West Ridge Resources, West Ridge Mine, C007/0041-WQ06-3, Task ID #2732

1. Was data submitted for all required monitoring sites? YES [X] NO [ ]

The West Ridge Mine is currently operational. Water monitoring data is evaluated from the data that is submitted quarterly by the mine to the Division EDI database. Water monitoring protocols, and surface, groundwater and monitoring wells, and UPDES sample parameters are outlined in the mine's MRP on Tables 7-1, 7-2, 7-3, and 7-4, respectively.

Surface *Operational sampling is required quarterly for six stream monitoring sites (ST-3, ST-8, ST-9, ST-10, ST-13, and ST-15). Four sites (ST-5, ST-6, ST-6A, and ST-7) are equipped with automatic samplers that are required to be checked following precipitation events. One stream monitoring site (ST-11) is monitored monthly from May through September, and one site (ST-12) is monitored once in May and once in September.*

All surface monitoring sites were sampled/monitored and data submitted for the 2006 third quarter monitoring.

Groundwater and Wells *Operational sampling is required quarterly for ten spring monitoring sites (SP-12, SP-13, SP-15, WR-1, WR-2, SP-16, SP-8, S-80, SP-101, and SP-102) and one groundwater monitoring well site (DH 86-2).*

All groundwater and well monitoring sites were sampled/monitored and data submitted for the 2006 third quarter monitoring.

UPDES *Operational sampling is required monthly for two active UPDES sites (D001 and D002).* Effective May 1, 2006, the general coal mining UPDES permit was updated to include the mine in the salinity offset program. Waste loads were calculated by DWQ that increased the total iron limit from 1.0 mg/L to 1.3 mg/L.

All UPDES sites were sampled and data submitted for the 2006 third quarter monitoring.

2. Were all required parameters reported for each site? YES [X] NO [ ]

Surface All required parameters were reported for sites that had measurable flow.

Groundwater and Wells All required parameters were reported for sites that had measurable flow.

UPDES All required parameters were reported.

3. Were any irregularities found in the data? YES [X] NO [ ]

Surface No irregularities were found in the data with the following exception:

ST-6 – Total iron reported at 1.536 mg/L is above two standard deviations and exceeds the limit for Class 3A Cold Water Aquatic Wildlife of 1.0 mg/L. The flow is entirely mine water discharge, which has increasing total iron concentrations. Continue to monitor for trends.

ST-5 – Specific conductivity and total dissolved solids (TDS) were reported above two standard deviations. Erratic TDS and conductivity concentrations are historically reported at this site possibly due to flow (mostly from mine discharge) in the ephemeral drainage. The reported TDS is consistent with the upstream site ST-6.

Groundwater and Wells No irregularities were found in the data with the following exceptions:

WR-2 – Specific conductivity, TDS, dissolved potassium, and total iron and manganese were reported above two standard deviations. The concentrations were likely high due to low flow. Continue monitoring for trends.

DH 86-2 – Specific conductivity, TDS, total hardness, dissolved calcium, magnesium and potassium, and chloride were reported above two standard

deviations. Continue monitoring for trends.

UPDES No irregularities were found in the data with the following exceptions:

D002 – Total iron concentration was reported at 2.084 mg/L for August, exceeding the limit of 1.3 mg/L.

4. On what date does the MRP require a five-year resampling of baseline water data?

Five-year baseline resampling is to occur at the time of the mid-term review. The next baseline resampling should be conducted by October 1, 2006.

5. Based on your review, what further actions, if any, do you recommend?

Surface Continue discussions with the Permittee and mine hydrologist regarding whether the automatic sampling method for some of the stream sites can be improved upon.

Groundwater and Wells None.

UPDES None. Utah DWQ is aware of the increased total iron concentrations in the mine water discharge.

6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements? YES [ ] NO [X]

7. Follow-up from last quarter, if necessary. Did the Mine Operator submit or provide an explanation for missing and/or irregular data?

Not necessary.